G. McEACHRON.

FLOUR SIFTER.

APPLICATION FILED SEPT. 14, 1909.

947,684. Patented Jan. 25, 1910.

Fig. 1.

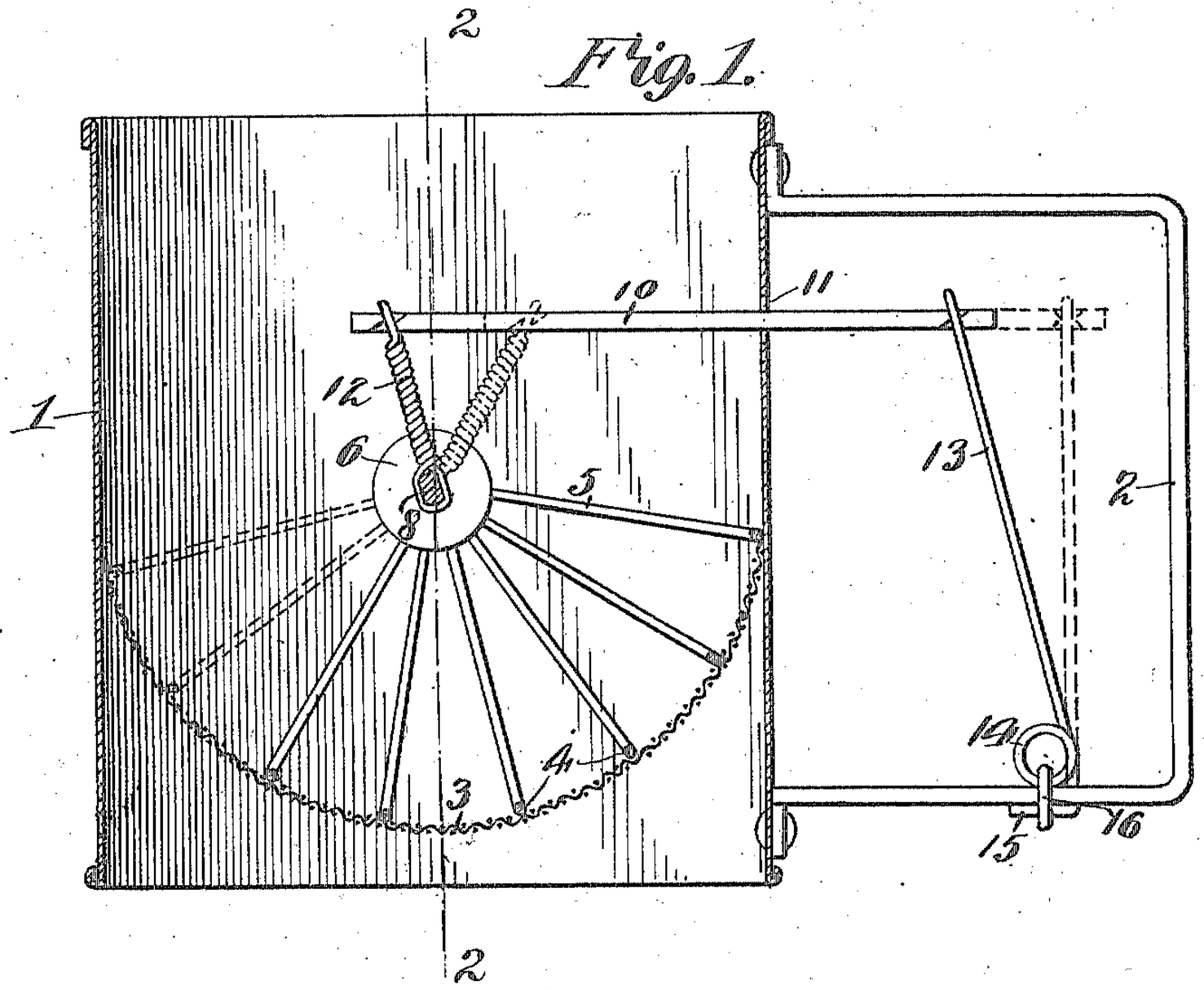
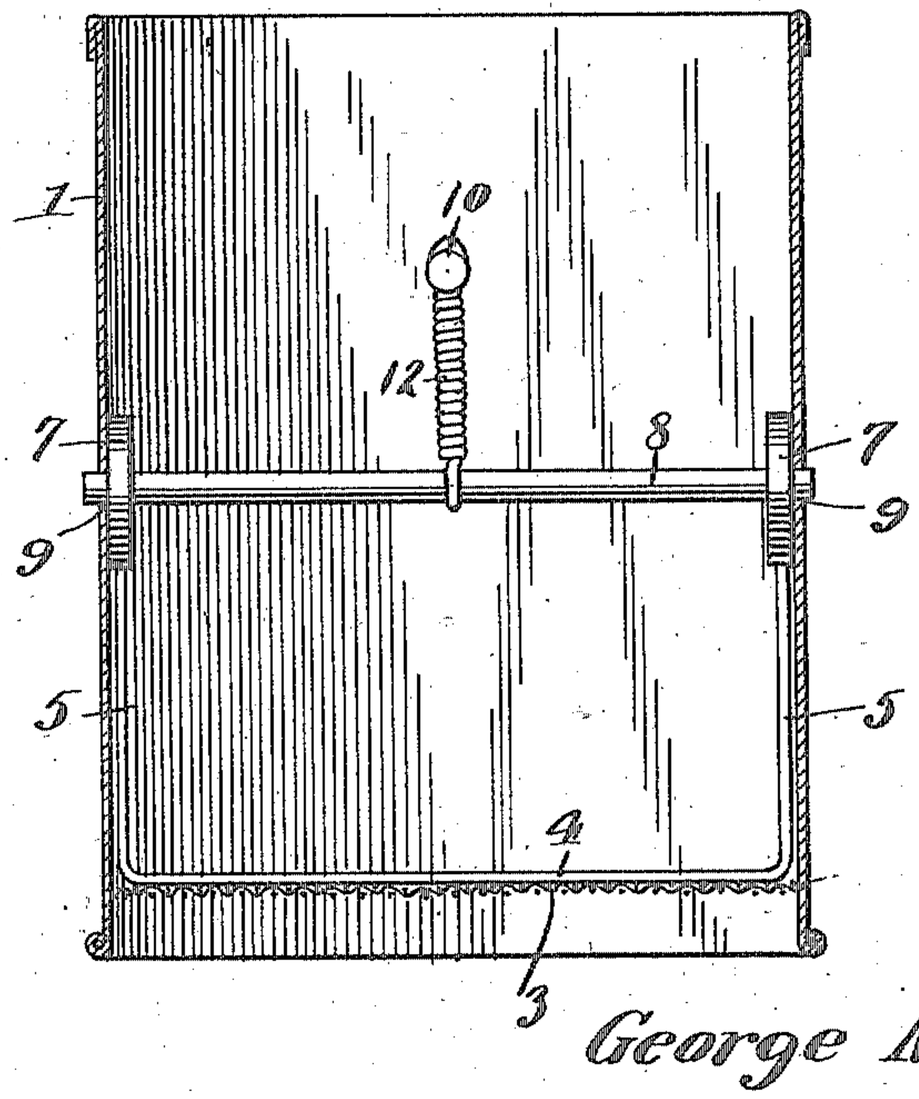



Fig. 2.

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# UNITED STATES PATENT OFFICE.

GEORGE McEACHRON, OF FORSYTH, MICHIGAN.

## FLOUR-SIFTER.

947,684. Specification of Letters Patent. Patented Jan. 25, 1910.

Application filed September 14, 1909. Serial No. 517,625.

*To all whom it may concern:*

Be it known that I, GEORGE McEACHRON, a citizen of the United States, residing at Forsyth, in the county of Marquette and State of Michigan, have invented new and useful Improvements in Flour-Sifters, of which the following is a specification.

This invention relates to flour sifters, and its object is to provide a simple, efficient and inexpensive construction of sifter having an oscillatory screen adapted to be actuated in one direction by the fingers of the hand gripping the handle of the device and in the reverse direction by spring action, thus making the operation semi-automatic in character, so that the flour may be quickly and conveniently sifted.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a vertical front to rear section through a sifter embodying my invention. Fig. 2 is a vertical transverse section of the same on line 2—2 of Fig. 1.

Referring now more particularly to the drawing, 1 designates the body of the sifter, which comprises a can or receptacle preferably cylindrical in form and open at top and bottom, said receptacle being provided at rear with a vertically disposed bail shaped or looped handle 2 for convenience in handling and transporting the same.

Arranged within the receptacle is a screen 3 of wire or other woven material suitably secured to the walls of the receptacle. Arranged above this screen is a rotary agitator comprising cross rods 4 carried by opposite sets of radial arms 5 fixed to disks 7 on a shaft 8 journaled at its ends in bearing openings 9 formed in the sides of the receptacle. Each rod and its arms may be conveniently made of a single piece of wire bent into U-form, as shown. The screen 3 forms a complete closure to the passage of all except fine particles of flour, as will be readily understood.

A pitman rod or wire 10 is arranged to reciprocate horizontally through an opening 11 formed in the rear wall of the receptacle. The inner end of the rod extends into the receptacle above the agitator and is coupled to the shaft 8 by a coiled wire connection 12 fixed to the shaft and pivotally connected with the pitman in any suitable manner. The rear end of the pitman rod extends into the space formed by the handle 2 and has pivotally connected therewith the upper end of a spring lever 13 formed either of spring wire or of a spring plate. The lower end of said lever 13 is formed with a coil 14 and an angularly bent arm 15 below the coil, which arm passes down through a slot in the lower arm of the handle 2 and bears against the underside thereof. A clip or suitable fastening 16 engages both the coil 14 and arm 15 and secures the lower end of the lever in a firm manner to the handle, while permitting freedom of contraction and expansion of the coil.

Normally the crank arm or connection 12 and the lever 13 lie in an upwardly and forwardly inclined position, so that by pulling back upon the lever by means of the fingers of the hand grasping the handle 2 the shaft and agitator may be rotated in one direction and the coil 14 at the same time contracted, whereby upon releasing the lever the agitator will be rotated in the reverse direction. By thus alternately drawing back upon and releasing the lever the agitator may be rapidly oscillated, so that the flour will be quickly and conveniently broken up and sifted into a pan or other vessel below the receptacle.

I claim:—

1. A sifter comprising a receptacle having a screen bottom, a transverse shaft journaled in said receptacle and provided with an upwardly extending crank arm, an oscillatory agitator carried by said shaft, a handle mounted upon the rear wall of the receptacle, a pitman pivotally connected with said crank arm and extending through the rear wall of the receptacle, and a lever secured at its lower end to the handle and pivotally connected at its upper end to the pitman, said lever being formed at its lower end with a spring coil.

2. A sifter comprising a receptacle having a screen bottom, a transverse shaft journaled in said receptacle and provided with a crank arm, an agitator carried by said shaft, a bail handle upon the rear wall of the receptacle, the base portion of said handle being formed with an opening, a pitman slidably mounted in the rear wall of the receptacle and pivotally connected at its inner end with the crank arm, a lever upon the handle pivoted at its upper end to the

pitman and formed at its lower end with a spring coil having an arm projecting through said opening in the base of the handle and bent at an angle against the under side thereof, and a clip engaging the spring, arm and handle and supporting the lever upon said handle.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE McEACHRON.

Witnesses:
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